STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES AMENDED REF  DIVISION OF OIL, GAS AND MINING								FORM 3 PORT						
APPLICATION FOR PERMIT TO DRILL									1. WELL I	NAME and NUI	MBER Jte Tribal 17-1	6		
2. TYPE OF		ILL NEW WELL (	REENTER P&	A WELL	DEEPI	EN WELL (	)			3. FIELD	OR WILDCAT	NTELOPE CREE	EK	
4. TYPE OF	WELL	Oil W	/ell Coalbe	ed Metha	ane Well: NO					5. UNIT o	r COMMUNITI	ZATION AGRE		AME
6. NAME OF	OPERATOR	<u> </u>	PETROGLYPH O							7. OPERA	TOR PHONE	208 685-7674		
8. ADDRESS	OF OPERATOR	000 B								9. OPERA	ATOR E-MAIL			
	L LEASE NUMBER		roadway Ave, Ste		NERAL OWNE					12. SURF	ACE OWNERS	west@pgei.co		
		Ó-H62-3512		FEDI	ERAL   I	NDIAN 🗓	) STATE	) FEE(	2_	FEDER/			ATE ()	FEE ()
	F SURFACE OWN	<u> </u>									ACE OWNER			
15. ADDRES	SS OF SURFACE C	OWNER (if box 12	= 'fee')							16. SURF	FACE OWNER	E-MAIL (if bo	12 = 'fee'	')
17. INDIAN (if box 12 =		IBE NAME dian Tribe			PLE FORMAT	IONS	PRODUCTION gling Applicatio		<b>.</b>	19. SLAN	_ V	ECTIONAL (	HORIZO	NTAL (
20. LOCAT	ION OF WELL		FC	OTAGE	S	Q	TR-QTR	SECT	TION	то	WNSHIP	RANGE		MERIDIAN
LOCATION	AT SURFACE		558 F	SL 742	: FEL		SESE	17		5	5.0 \$	3.0 W		U
Top of Upp	permost Producin	g Zone	558 F	SL 742	: FEL		SESE	17	7	5	5.0 S	3.0 W		U
At Total D	epth		558 F	SL 742	FEL		SESE	17	7	5.0 S		3.0 W		U
21. COUNT		CHESNE		22. DIS	2. DISTANCE TO NEAREST LEASE LINE (Feet) 23. NUMBER OF ACRES IN DRILLING UNIT 558									
					25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 2125  26. PROPOSED DEPTH MD: 6220 TVD: 6220									
27. ELEVAT	ION - GROUND LE	EVEL 6323		28. BO	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICA 43-8342				ABLE					
					Hole, Casir		Cement Infor	rmation						
String	Hole Size	Casing Size	Length		Weight	Grad	e & Thread	М	lax Mud	Wt.	Cement	Sacks	Yield	Weight
Cond	20	14	0 - 40		5.0		Jnknown		10.0		Class G	25	1.17	15.8
Surf	12.25 7.875	8.625 5.5	0 - 480		15.5		-55 ST&C -55 LT&C		10.0		Class G	220 479	1.17	15.8
1100	7.070	0.0	0 02		10.0		00 21 00		10.0	,	Class G	331	1.46	13.4
			1			ATTAC	HMENTS						<u> </u>	
	VERIFY	THE FOLLOWI	NG ARE ATTAC	CHED II	N ACCORDA	ANCE W	ITH THE UTA	H OIL AN	ND GAS	CONSE	RVATION GE	NERAL RUL	.ES	
<b>W</b> EL	L PLAT OR MAP P	REPARED BY LIC	ENSED SURVEYO	R OR EN	NGINEER		<b>✓</b> COMP	PLETE DRI	LLING PI	_AN				
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					FORM	5. IF OPE	RATOR IS	S OTHER	THAN THE LEA	ASE OWNER				
DIRE	DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)  TOPOGRAPHICAL MAP													
NAME Ed Trotter TITLE Agent					t	1		PHONE	<b>E</b> 435 789	9-4120				
SIGNATURE DA					<b>DATE</b> 01/3	1/2012			EMAIL	edtrotter@	@easilink.com			
	er <b>assigned</b> 1351212000	0			APPROVAL				B	>00	elle			
			Permit Manager											

## **CONFIDENTIAL**

# EIGHT POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 17-16 SE SE, SEC 17, T5S, R3W DUCHESNE COUNTY, UTAH

#### 1. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Formation		Subsea		MD
Surface Formation= <b>Uinta</b>				
Unita		6322		0
Green River		4800		1538
Trona		3497		2841
Mahogany Shale		3355		2983
"B" Marker		2260		4078
"X" Marker	000	1773		4565
Douglas Creek Marker		1630		4708
"B" Limestone	Waterflood Unit Interval	1246		5092
Base Castle Peak Limestone	> 5	683		5655
BSCARB		277	X Y	6061
Wasatch		-7		NDE
Rig TD		118		6220

# 2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:

Substance	<b>Formation</b>	<b>SUBSEA</b>	MD
Base of moderately saline			
ground water*	Uinta	6100	238
Oil/Gas	Douglas Creek	1630	4708
Oil/Gas	B/Castle Peak	683	5655

Any water encountered during drilling shall be sampled, analyzed and reported to the BLM Vernal office using State of Utah DOGM Form 7 *Report of Water Encountered during Drilling*. The following analyses shall be performed on any water encountered:

Flow rate (or blowtest)	Temperature	pН	TDS
Dissolved Iron	Dissolved Magnesium	Dissolved Bicarb.	Dissolved Sulfate
Dissolved Calcium	Dissolved Sodium	Dissolved Carbonate	Dissolved Chloride

All depths through the "Base of moderately saline ground water"\*, along with any water encountered below that depth which is less than 10,000 TDS, shall be protected by the surface casing or by lifting the cement of the production casing into the surface casing.

<sup>\*</sup>Base of Moderately Saline Groundwater from Howells, Longson and Hunt, 1981, Utah State Technical Publication 92: The Base of the Moderately Saline Water in the Uinta Basin, Utah



API Well Number: 43013512120000

### **CONFIDENTIAL**

# EIGHT POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 17-16 SE SE, SEC 17, T5S, R3W DUCHESNE COUNTY, UTAH

#### 3. PROPOSED CASING PROGRAM:

String	Hole	Casing	Top - MD	Bottom - MD	Weight lb/ft	Grade	Thread
Conductor	20"	14"	surface	40'	steel	Cond'r	none
Surface	12-1/4"	8-5/8"	surface	480'	24	J-55	STC
Production	7-7/8"	5-1/2"	surface	6220'	15.5	J-55	LTC

String	Hole	Casing	Collapse	Burst	Tensile
Surface	12-1/4"	8-5/8"	1,370 psi	2,950 psi	244,000 lb
Production	7-7/8"	5-1/2"	4,040 psi	4,810 psi	248,000 lb

- All casing will be new or inspected.
- The surface and production strings shall have a minimum of one (1) centralizer on each of the bottom three (3) joints.
- The production string shall have a minimum of one (1) centralizer for every three (3) joints from TD to the top of the "B" marker at 4078' MD

#### 4. PROPOSED CEMENTING PROGRAM:

String	Top Bottom	Cement Description	Sacks Vol (ft³)	Excess	Weight (ppg)	Yield (ft³/sk)
Conductor	0 40			nt volumes	to grout Co	onductor
Surface 0		Class G +2% CaCl2	220	30%	15.8	1.17
		+0.25 lb/sk Cello Flake	258	30 /0	15.0	1.17
Production	0	EXPANDACEM (Class G +additives)	479	30%	12.5	1.92
Lead 4078 + 1 lb/sk (		+ 1 lb/sk Granulite TR¼ (LCM)	919	30 /0	12.5	1.92
Production 4078 EXPAN		EXPANDACEM (Class G +additives)	331	300/	13.4	1.46
Tail	6220	+ 1 lb/sk Granulite TR1/4 (LCM)	483	511%		1.40

- The 8-5/8" surface casing shall be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.
- The 5-1/2" production casing shall be cemented back to surface. In the event that during the primary longstring cementing operation the cement does not circulate to surface, a remedial cementing operation shall be performed only if necessary to lift cement above the Trona at 2841'MD



### **CONFIDENTIAL**

# EIGHT POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 17-16 SE SE, SEC 17, T5S, R3W DUCHESNE COUNTY, UTAH

#### 5. MINIMUM PRESSURE CONTROL AND SAFETY EQUIPMENT:

- An 8", 2000 PSI, Double Ram BOPE with Hydraulic Closing Unit shall be used.
- A 2000 PSI Working Pressure Annular shall be used
- The flowline shall have a minimum diameter of 10".
- Auxiliary equipment shall be a Kelly Cock, Bit Float, and a TIW valve with drill pipe threads
- Spark arrestors shall be equipped on all engine exhausts within 100 feet of the wellbore.
- See attached 2,000 psi BOP schematic diagram.

#### **BOPE TESTING PROCEDURE:**

• The BOPE shall be tested by a professional tester to conform to Onshore Order #2.

#### 6. MUD PROGRAM:

#### A. SURFACE HOLE

- The surface hole will be drilled with an air/mist system from 0' to 480'. All cuttings shall be directed to pit.
- A trailer-mounted compressor with a capacity of 2000 CFM will be used. Compressor will have a safety shut-off valve located less than 15 feet from the driller's controls of the rig.
- The rat and mouse holes will be drilled with the air rig after surface casing is cemented.
- The 140 barrel water truck used with the deduster will be the source of kill fluid in the highly unlikely event of pressure being encountered during drilling of the surface hole.
- Operator requests the following variances from Onshore Order 2 part E during drilling of the surface hole. Operator will use air drilling techniques only on surface hole:
  - Operator requests a variance to regulations requiring the blooie line discharge to be 100' from the wellbore. Due to reduced location size, the blooie line discharge will be approximately 75' from the wellbore and securely anchored.
  - Operator requests a variance to regulations requiring an automatic igniter or continuous pilot light on the blooie line. A mister shall be on the end of the blooie line.
  - Operator requests a variance to regulations requiring compressors be located in the opposite direction from the blooie line; a minimum of 100' from the wellbore. Due to the reduced location size, the compressors shall be located as close as is reasonable to the opposite direction from the blooie line and 75' from the wellbore.
  - o Operator requests a variance to regulations requiring a BOPE on the hole when drilling the surface hole. An air bowl shall be utilized on the diverter system in place of a BOPE.



### **CONFIDENTIAL**

# EIGHT POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 17-16 SE SE, SEC 17, T5S, R3W DUCHESNE COUNTY, UTAH

#### B. PRODUCTION HOLE

- The production hole shall be drilled with a freshwater polymer system from 480' to 6220'. LSND mud if conditions warrant.
- Clay inhibition and hole stability shall be achieved with a Diammonium Phosphate (DAP) additive or similar source of clay-stabilizing ions. Anticipated mud weight is 8.3-8.4 lbs/gal.
- All cuttings and circulating medium shall be directed into the reserve pit. Total Dissolved Solids (TDS) are anticipated to be less than 3000 PPM.
- Sufficient mud inventory will be maintained on location in either tanks or the reserve pit during the drilling of the production hole to handle any adverse conditions that may arise.
- If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite. Enough material shall be maintained on location to allow for the mudweight to be raised to 10.5 lbs/gal should need arise.
- During drilling operations, pit levels and flow from the well shall be monitored by instrumentation to include at least: a pit volume totalizer (PVT), a stroke counter, and a mud-flow indicator.
- A mud-gas separator shall be available on location. Operator does not plan on using a gas detector on the mud return due to the fact that any abnormal pressure is the result of offset water injection.

#### C. HAZARDOUS MATERIALS AND CHEMICALS

- Chromate additives **shall NOT** be used in the mud system on Indian lands without prior BLM approval to ensure adequate protection of freshwater aquifers.
- Chemicals subject to reporting under SARA Title III in an amounts equal to or greater than 10,000 pounds annually **shall NOT** be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of this well.
- Extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities shall NOT be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of this well.
- Hazardous substances specifically listed by the EPA as a hazardous waste, as defined in 40 CFR 261 (D), or any substances that through their use would lead to the generation of a hazardous waste, shall NOT be used in association with the drilling, testing, or completion of this well.



API Well Number: 43013512120000

### **CONFIDENTIAL**

# EIGHT POINT DRILLING PLAN PETROGLYPH OPERATING COMPANY, INC UTE TRIBAL 17-16 SE SE, SEC 17, T5S, R3W DUCHESNE COUNTY, UTAH

#### 7. EVALUATION PROGRAM:

Logs: Triple Combo TD to base of surface casing (AIT, DSN, CDL)

Base of surface casing to surface (GR)

Cores: None planned

DST: None planned

Testing: Operator plans no testing until the completion phase of the well.

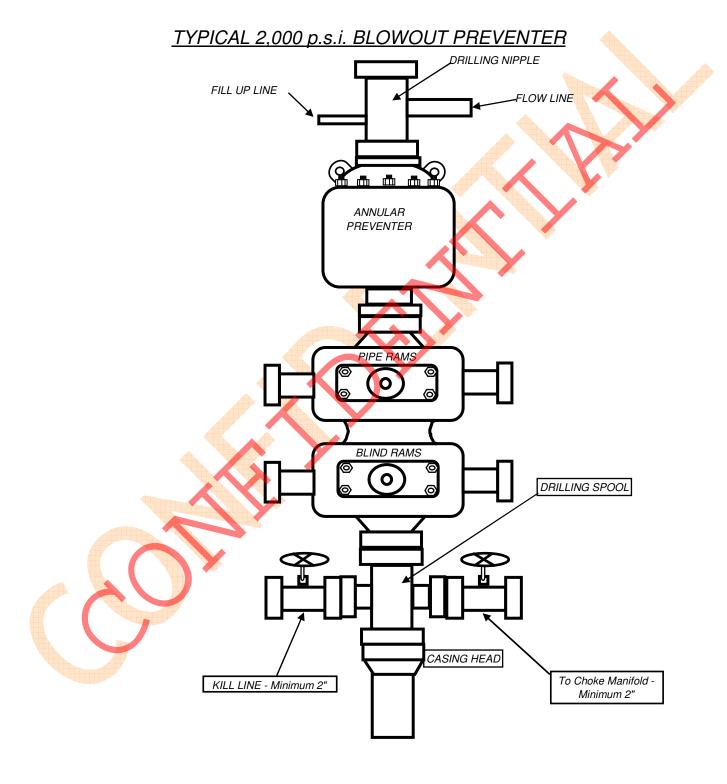
#### 8. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

- Operator anticipates Bottom Hole Temperatures below 150°F, the maximum temperature for DAP drilling fluids.
- No H<sub>2</sub>S has been encountered or is known to exist from previous drilling in the area at this depth.
- Maximum pressure for hydrocarbon bearing zones at native conditions in this area is approximately 1555 PSI (0.25 PSI/ft gradient).
- This well is in the vicinity of active injection wells. Nearby active injection can cause pressures up to a 0.433 PSI/ft gradient (2693 PSI).



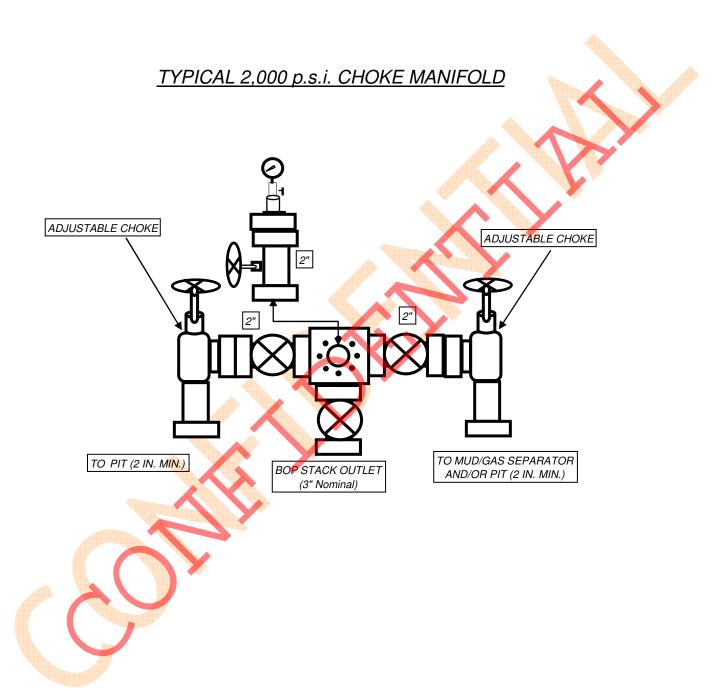
### **CONFIDENTIAL**

EIGHT POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
UTE TRIBAL 17-16
SE SE, SEC 17, T5S, R3W
DUCHESNE COUNTY, UTAH

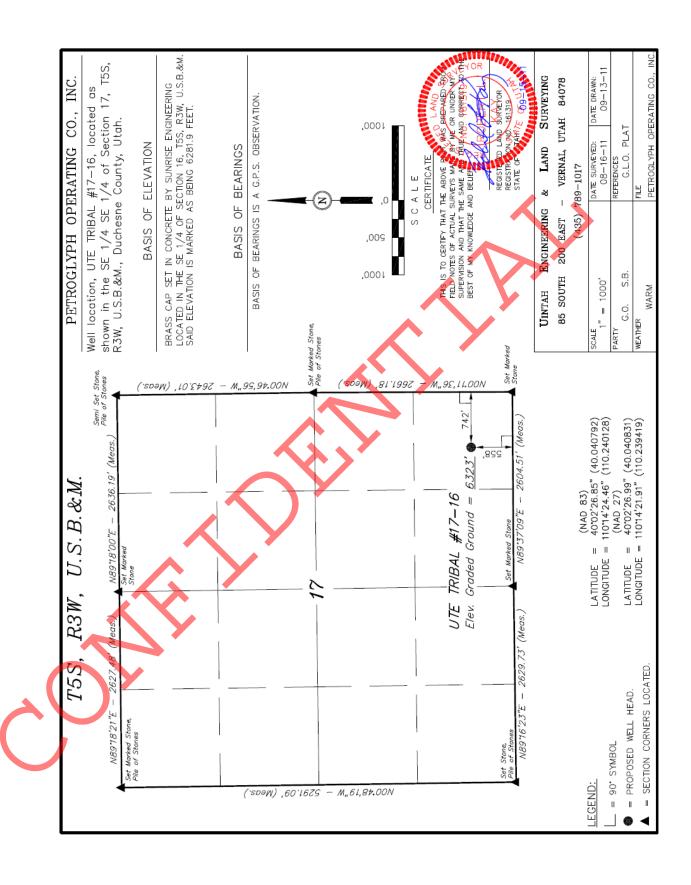


## **CONFIDENTIAL**

EIGHT POINT DRILLING PLAN
PETROGLYPH OPERATING COMPANY, INC
UTE TRIBAL 17-16
SE SE, SEC 17, T5S, R3W
DUCHESNE COUNTY, UTAH









#### Certification

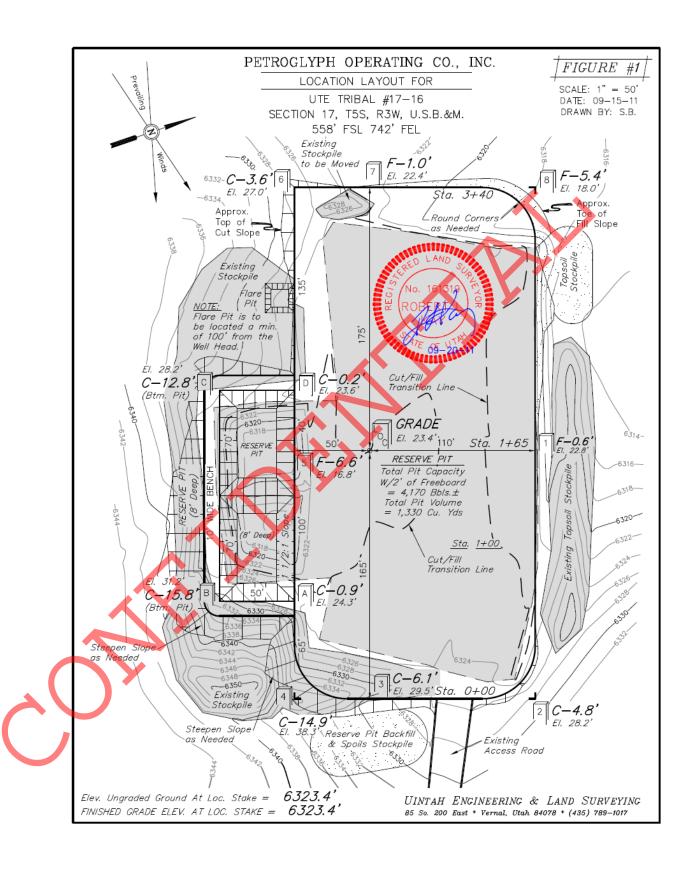
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions that presently exist; that the statements made in the Plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Petroglyph Operating Co., Inc. and its contractors and subcontractors in conformity with this Plan and the terms and conditions under which it is approved.

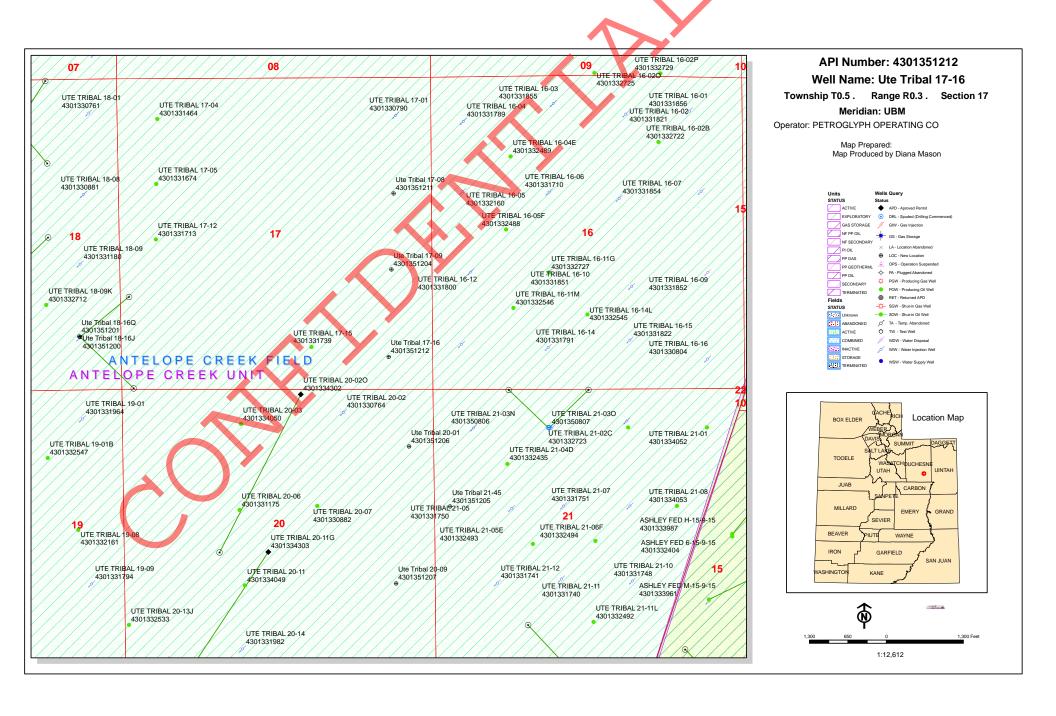
Please be advised that Petroglyph Operating Co., Inc. is considered to be the operator of the UTE TRIBAL 17-16 Well, located in the SE/SE of Section 17, T5S, R3W, Duchesne County, Utah; Lease #14-20-H62-3512; and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond Coverage is provided under Bond #LP4138153.

Date

Ed Trotter, as Agent for Petroglyph Operating Co., Inc.

Document1 1





API Well Number: 43013512120000

# WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 1/31/2012 **API NO. ASSIGNED:** 43013512120000

WELL NAME: Ute Tribal 17-16

**OPERATOR:** PETROGLYPH OPERATING CO (N3800) **PHONE NUMBER:** 435 789-4120

**CONTACT:** Ed Trotter

PROPOSED LOCATION: SESE 17 050S 030W Permit Tech Review:

SURFACE: 0558 FSL 0742 FEL Engineering Review:

BOTTOM: 0558 FSL 0742 FEL Geology Review:

COUNTY: DUCHESNE LATITUDE: 40.04079

UTM SURF EASTINGS: 564822.00

UTM SURF EASTINGS: 564822.00

FIELD NAME: ANTELOPE CREEK
LEASE TYPE: 2 - Indian

**LEASE NUMBER:** BIA 14-20-H62-3512

SURFACE OWNER: 2 - Indian

PROPOSED PRODUCING FORMATION(S): CASTLE PEAK

COALBED METHANE: NO

**LONGITUDE**: -110.24015 **NORTHINGS**: 4432561.00

#### **RECEIVED AND/OR REVIEWED:**

**✓** PLAT

**Bond:** INDIAN - LP4138153

Potash

Oil Shale 190-5

Oil Shale 190-3

Oil Shale 190-13

Water Permit: 43-8342

RDCC Review:

Fee Surface Agreement

Intent to Commingle

Commingling Approved

LOCATION AND SITING:

R649-2-3.

Unit: ANTELOPE CREEK

R649-3-2. General

R649-3-3. Exception

Drilling Unit

Board Cause No: Cause 214-2

Effective Date: 6/9/2000

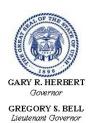
Siting: Suspends General Siting

R649-3-11. Directional Drill

Comments: Presite Completed ENH REC PROJ:

Stipulations: 4 - Federal Approval - dmason

API Well No: 43013512120000



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

#### Permit To Drill

\*\*\*\*\*\*

Well Name: Ute Tribal 17-16

API Well Number: 43013512120000

**Lease Number:** BIA 14-20-H62-3512

Surface Owner: INDIAN Approval Date: 2/2/2012

#### **Issued to:**

PETROGLYPH OPERATING CO, 960 Broadway Ave, Ste 500, Bosie, ID 83703

#### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 214-2. The expected producing formation or pool is the CASTLE PEAK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

#### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

API Well No: 43013512120000

#### Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
  - Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 27757 API Well Number: 43013512120000

	STATE OF UTAH		FORM 9		
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: 14-20-H62-3512		
SUNDR	Y NOTICES AND REPORTS ON	I WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In		
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: ANTELOPE CREEK		
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: Ute Tribal 17-16		
2. NAME OF OPERATOR: PETROGLYPH OPERATING C	:0		9. API NUMBER: 43013512120000		
3. ADDRESS OF OPERATOR: 960 Broadway Ave, Ste 500		IONE NUMBER: 85-7674 Ext	9. FIELD and POOL or WILDCAT: ANTELOPE CREEK		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0558 FSL 0742 FEL			COUNTY: DUCHESNE		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESE Section: 1	HP, RANGE, MERIDIAN: 7 Township: 05.0S Range: 03.0W Meridian	: U	STATE: UTAH		
11. CHECH	K APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT					
Date of Work Completion:	L DEEPEN L	FRACTURE TREAT	☐ NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	L PLUG BACK		
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
7/11/2012	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12 DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all p	pertinent details including dates	denths volumes etc		
	well on 07/11/2012. We set 40		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 16, 2012		
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NUMBER</b> 435 722-5302	TITLE Regulatory & Compliance S	рс		
SIGNATURE N/A		<b>DATE</b> 7/13/2012			

RECEIVED: Jul. 13, 2012

# BLM - Vernal Field Office - Notification Form

Operator Petroglyph Operating Rig Name/# Craig's /Air rig Submitted By Rodrigo Jurado Phone Number 435-722-5302 Well Name/Number Ute Tribal 17-16 Qtr/Qtr SESE Section 17 Township 55 Range 3W Lease Serial Number 14-20-H62-3512 API Number 43-013-51212 Spud Notice — Spud is the initial spudding of the well, not drilling					
out below a casing string.					
Date/Time <u>7/10/2012</u> <u>02:00</u> AM PM					
<u>Casing</u> – Please report time casing run starts, not cementing times.					
Surface Casing RECEIVED					
Intermediate Casing  JUL 1 0 2012					
Production Casing DIV. OF OIL, GAS & MINING					
Liner  Other					
Date/Time AM					
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other					
Date/Time AM					
Remarks <u>We plan to spud at the time referenced.</u> We plan to set 40' of 14" Conductor.(Sent 7/9/2012@9:15AM)					

# **BLM - Vernal Field Office - Notification Form**

Operator Petroglyph Operating	Rig Name/# <u>Craig's /Air rig</u>					
Submitted By Rodrigo Jurado Phone Number 435-722-5302						
Well Name/Number <u>Ute Tribal 17-16</u>						
Qtr/Qtr <u>SESE</u> Section <u>17</u> Township <u>5S</u> Range <u>3W</u>						
Lease Serial Number <u>14-20-H62-4633</u>						
API Number43-013-51212						
<del>-</del>	I spudding of the well, not drilling					
out below a casing string.						
Date/Time	AM PM					
Date/Time	An 111					
<u>Casinq</u> – Please report time cas	ing run starts, not cementing					
times.	,					
Surface Casing	RECEIVED					
Intermediate Casing						
Production Casing	JUL 1 0 2012					
Liner	DIV. OF OIL, GAS & MINING					
Other						
Date/Time <u>7/11/2012</u>	11:00 AM PM					
BOPE THE BOPE IN THE STATE OF T						
Initial BOPE test at surface	<u> </u>					
BOPE test at intermediate	casing point					
30 day BOPE test						
Other						
<b>5.</b> 1. 7 <b>.</b>	ANA DAA D					
Date/Time	AM [ ] PM [ ]					
Demande Me alon to win anno	490' of 9 E/9" 1-EE casing					
Remarks We plan to run apprx 480' of 8-5/8" J-55 casing.						
(Sent 7/10/2012 1:00 P.M.)						

FEB 2 4 2012 **UNITED STATES** 

FORM APPROVED OMB No. 1004-0137 Expires July 31, 2010

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

5. Lease Serial No.

#### 14-20-H62-4633

If Indian, Allottee or Tribe Name

APPLICATION FOR PERMI	TTO DRILL OR REENTH	CR	UTE INDIA	N TRIBE		
1a. Type of Work: X DRILL	CONTENED EN LENGE	7.	If Unit or CA Agre BIA 14-20-H Lease Name and W			
1b. Type of Well: 🗵 Oil Well 🔲 Gas Well 🗀 Other		,	UTE TRIBA			
2. Name of Operator PETROGLYPH OPERATING CO., 3	INC.	9.	API Well No. 43-013-	51212		
3a. Address P.O. BOX 607, ROOSEVELT, UT 84066	3b. Phone No. (Include area code) (435)722-2531	, ,	10. Field and Pool, or Exploratory ANTELOPE CREEK			
4. Location of Well (Report location clearly and in accordance At surface 558' FSL, 742' FEL  At proposed prod. Zone	SE/SE		Sec., T., R., M., or B SEC. 17, T58 U.S.B.&M.	lk. and Survey or Area		
14. Distance in miles and direction from nearest town or post of 19.54 MILES SOUTHWEST OF M			County or Parish DUCHESNE	13. State UTAH		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. Unit line, if any)	16. No. of Acres in lease 640.0		nit dedicated to this w			
18. Distance from proposed location* to nearest well, drilling, completed, See Topo applied for, on this lease, ft. Map "C"	19. Proposed Depth <b>6200</b> °		M/BIA Bond No. on file  LP4138153			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6323.4 FEET GRADED GROUND	22. Approximate date work will start* UPON APPROVAL		23. Estimated duration 45 DAYS			
The following, completed in accordance with the requiren	24. Attachments nents of Onshore Oil and Gas Order No. 1, s	shall be attached	to this form:			
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Fore SUPO shall be filed with the appropriate Forest Service</li> </ol>	st System Lands, the 5. Operator certifica	oove). tion.	and/or plans as may	_		
25. Signature Like from the	Name (Printed/Typed) Ed Trotter	RECEIV		nuary 20, 2012		
Title Agent	DIV	OF OIL GAS &	1012 Minung			
Approved by (Signature)	Name (Printed/Typed)		Date			
Jerry Kenczka JUL 0 6 2012						
Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD	OFFICE				
Application approval does not warrant or certify that the application duct operations thereon.	ntholds legal or equitable title to those right	s in the subject le	ease which would enti	tle the applicant to		

\*(Continued on page 2)

Conditions of Approval, if any, are attached.

and willfully to make to any department or agency of the

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any per United States any false, fictitious or fraudulent statements or representations as to any mater.



#### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE** 170 South 500 East

**VERNAL, UT 84078** 

(435) 781-4400



#### CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Petroglyph Operating CO., Inc.

Ute Tribal 17-16

43-013-51212

Location:

SESE, Sec. 17, T5S, R3W

Lease No:

14-20-H62-4633 Agreement:

**Antelope Creek** 

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

#### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

#### NOTIFICATION REQUIREMENTS

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

#### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### Additional Stipulations:

- All areas of disturbance (including surface pipelines) must have appropriate surface use agreements or approvals in place with the proper owner and/or agency before such action is started.
- The conditions as set forth by those owners and/or agencies.

#### General Conditions of Approval:

- A <u>30'</u> foot corridor right-of-way shall be approved. Upon completion of each pipeline in corridor, they shall be identified and filed with the Ute Tribe.
- A qualified Archaeologist accompanied by a Tribal Technician will monitor trenching construction of pipeline.
- The Ute Tribe Energy & Minerals Department and the BLM will be notified, in writing 48 hours prior to construction of pipeline.
- Construction Notice shall be given to the department on the Ute Tribe workdays, which are Monday through Thursday. The Company understands that they may be responsible for costs incurred by the Ute Tribe after hours.
- The Company shall inform contractors to maintain construction of pipelines within the approved ROW's.
- The Company shall assure the Ute Tribe that "ALL CONTRACTORS, INCLUDING SUB-CONTRACTORS, LEASING CONTRACTORS, AND ETC." have acquired a current and valid Ute Tribal Business License and have "Access Permits" prior to construction, and will have these permits in all vehicles at all times.
- You are hereby notified that working under the "umbrella" of a company does not allow you to be in the field, and can be subject to those fines of the Ute Tribe Severance Tax Ordinance.
- Any deviation of submitted APD's and ROW applications the Companies will notify the Ute Tribe and BIA in writing and will receive written authorization of any such change with appropriate authorization.
- The Company will implement "Safety and Emergency Plan." The Company's safety director will ensure its compliance.
- All Company employees and/or authorized personnel (sub-contractors) in the field will have approved applicable APD's and/or ROW permits/authorizations on their person(s) during all phases of construction.
- All vehicular traffic, personnel movement, construction/restoration operations shall be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.

Page 3 of 7 Well: Ute Tribal 17-16 7/5/2012

- All personnel will refrain from collecting artifacts, any paleontological fossils, and from disturbing any significant cultural resources in the area.
- The personnel from the Ute Tribe Energy & Minerals Department will be notified should cultural remains from subsurface deposits be exposed or identified during construction. All construction will cease.
- All mitigative stipulations contained in the Bureau of Indian Affairs Site Specific Environmental Assessment (EA) will be strictly adhered.
- Upon completion of Application for Corridor Right-Way, the company will notify the Ute Tribe Energy & Minerals Department, so that a Tribal Technician can verify Affidavit of Completion.

Page 4 of 7 Well: Ute Tribal 17-16 7/5/2012

# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- Production casing cement shall be brought up and into the surface.
- A variance is granted for Onshore Order #2 Drilling Operations III. E. "Blooie line discharge 100 feet from well bore and securely anchored" Blooie line can be 75 feet. All requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the
  daily drilling report. Components shall be operated and tested as required by Onshore Oil &
  Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be
  performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be
  reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.

Page 5 of 7 Well: Ute Tribal 17-16 7/5/2012

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water
  is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM
  Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM\_UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: Ute Tribal 17-16 7/5/2012

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written
  communication and must be received in this office by not later than the fifth business day
  following the date on which the well is placed on production. The notification shall provide, as a
  minimum, the following informational items:
  - o Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if

Page 7 of 7 Well: Ute Tribal 17-16 7/5/2012

performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field
  Office Petroleum Engineers will be provided with a date and time for the initial meter calibration
  and all future meter proving schedules. A copy of the meter calibration reports shall be
  submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API
  standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All
  measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted
  to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs
  first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be
  adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively
  sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior
  approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30
  days, prior approval of the BLM Vernal Field Office shall be obtained and notification given
  before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office
  Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in
  order that a representative may witness plugging operations. If a well is suspended or
  abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent
  Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual
  plugging of the well bore, showing location of plugs, amount of cement in each, and amount of
  casing left in hole, and the current status of the surface restoration.

#### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

## **ENTITY ACTION FORM**

Operator:

Petroglyph Operating Company

Operator Account Number: N 3800

Address:

P.O. Box 607

city Roosevelt

state UT

Phone Number: (435) 722-2531

Well 1

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4301351213	Ute Tribal 04-16		SESE	4	5S	3W	Duchesne
Action Code	Current Entity Number	New Entity Number	S	pud Dat	e .		ity Assignment ffective Date
В	90009	09384	7	7/10/201:	2	713	3112012
Comments:					AAH	STEN ELL	1991 A 1

zip 84066

S: Please add to existing 03-13 Tank Battery

Meli 2 API Number	Well N	lame	QQ	Sec	Twp	Rng	County
4301351211	Ute Tribal 17-08		SENE	7	5S	3W	Duchesne
Action Code	Current Entity Number	New Entity Number	S	pud Da	te	E-900 CO CO CO CO	ity Assignment ffective Date
В	99999	12246	7	/13/201	2	71	31/2012
Comments: Pleas	se add to existing 16-02	Tank Battery.	•		CC	INFID	ENTIAL

Well 3

API Number	Well	Name	QQ	Sec	Twp	Rng		County
4301351212	Ute Tribal 17-16		SESE	17	5S	3W	1	Duchesne
Action Code	Current Entity Number	New Entity Number	S	pud Dai	le			signment ve Date
В	999901	12085	7	7/11/201	2	71	31	12012
Comments: -Pleas	e add to existing 17-1	5 Tank Battery.			C			TIAL

#### **ACTION CODES:**

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

Rodrigo Jurado

Signature/

Regulatory Compliance Spc Title

7/19/2012

Date

(5/2000)

# Sundry Number: 29951 API Well Number: 43013512120000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: 14-20-H62-3512
	RY NOTICES AND REPORTS (		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In
	oposals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: ANTELOPE CREEK
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: UTE TRIBAL 17-16
2. NAME OF OPERATOR: PETROGLYPH OPERATING O	co		9. API NUMBER: 43013512120000
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste		<b>PHONE NUMBER:</b> 208 685-7685 Ext	9. FIELD and POOL or WILDCAT: ANTELOPE CREEK
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0558 FSL 0742 FEL			COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSI Qtr/Qtr: SESE Section: 1	HIP, RANGE, MERIDIAN: 7 Township: 05.0S Range: 03.0W Meridi	an: U	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
On 09/19/2012 Peti following: B8.1: 4 4774-4780, C5.2: 5036-5042, D8: 5 5740-5744. We in 22.7 gram charges, intend to frac using	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show at roglyph Operating intends to 4418-4420, B11.1: 4524-454, 4815-4825, C6: 4905-4914, 4815-4825, C6: 4905-4914, 4817-5428, E0.2: 5663-5666, 1818-1818-1818-1818-1818-1818-1818-181	perforate and frac the 46, C5: 4764-4766 & 4 & 4918-4925, C9.1: 5, E1.2: 5728-5732 & 1 3 1/8" Perf Guns w/ spf @ 120* phased. We containing 20/40 mesh	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER:  Depths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining  Date: September 17, 2012  By:
NAME (PLEASE PRINT)	PHONE NUMBE		
Rodrigo Jurado  SIGNATURE	435 722-5302	Regulatory & Compliance S  DATE	рс
N/A		9/14/2012	

Sundry Number: 30746 API Well Number: 43013512120000

	STATE OF UTAH			FORM 9
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		<b>;</b>	5.LEASE DESIGNATION AND SERIAL NUMBER: 14-20-H62-4633
	Y NOTICES AND REPORTS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In
Do not use this form for pro current bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.	y deep ontal l	en existing wells below aterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: ANTELOPE CREEK
1. TYPE OF WELL Oil Well				8. WELL NAME and NUMBER: UTE TRIBAL 17-16
2. NAME OF OPERATOR: PETROGLYPH OPERATING C	50			9. API NUMBER: 43013512120000
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste	9. FIELD and POOL or WILDCAT: ANTELOPE CREEK			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0558 FSL 0742 FEL				COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SESE Section: 1	IIP, RANGE, MERIDIAN: 7 Township: 05.0S Range: 03.0W Mer	U	STATE: UTAH	
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE		ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ F	FRACTURE TREAT	NEW CONSTRUCTION
10/3/2012	OPERATOR CHANGE	☐ F	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	✓ PRODUCTION START OR RESUME	☐ F	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
_	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION		DTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show	-	_	lepths, volumes, etc.
The date of f	irst production for this wel	II wa	s 10/03/2012.	Accepted by the
				Utah Division of Oil, Gas and Mining
				FOR RECORD ONLY
				October 12, 2012
				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
NAME (PLEASE PRINT)	PHONE NUM	BER	TITLE	
Rodrigo Jurado	435 722-5302		Regulatory & Compliance S	рс
SIGNATURE N/A			<b>DATE</b> 10/5/2012	

Sundry Number: 31234 API Well Number: 43013512120000

			FORM 9					
	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE	c						
	DIVISION OF OIL, GAS, AND MINI	<del>-</del>	5.LEASE DESIGNATION AND SERIAL NUMBER: 14-20-H62-4633					
SUNDF	RY NOTICES AND REPORTS C	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute In					
	oposals to drill new wells, significantly direenter plugged wells, or to drill horizoning for such proposals.		7.UNIT or CA AGREEMENT NAME: ANTELOPE CREEK					
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: UTE TRIBAL 17-16					
2. NAME OF OPERATOR: PETROGLYPH OPERATING (	00		9. API NUMBER: 43013512120000					
3. ADDRESS OF OPERATOR: 960 Broadway Avenue, Ste		PHONE NUMBER: 208 685-7685 Ext	9. FIELD and POOL or WILDCAT: ANTELOPE CREEK					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0558 FSL 0742 FEL			COUNTY: DUCHESNE					
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 7 Township: 05.0S Range: 03.0W Meridia	ın: U	STATE: UTAH					
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	acidize	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION					
10/3/2012	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
Nopon Sale.								
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  On 9/13/2012 Petroglyph Operating ran GR/CBL and found ETOC @ Surface. We perforated the following: 5740-44, 5728-32, 5663-44, 5417-28, 5036-42, 4905-25, 4815-25, 4774-80, 4764-66, 4524-46 & 4418-20. We frac'd the following intervals: 5663-5744 w/ 517 Bbls fluid cont 28,500#'s of sand 5417-5428 w/ 495 Bbls fluid cont 35,200#'s of sand 5036-5042 w/ 399 Bbls fluid cont 20,300#'s of sand 4905-4925 w/ 494 Bbls fluid cont 40,400#'s of sand 4764-4825 w/ 484 Bbls fluid cont 40,000#'s of sand 4418-4586 w/ 666 Bbls fluid cont 58,660#'s of sand We perforated using Titan 3 1/8" perf guns containing 22.7 gram charges, 0.42" EHD, 23.54" TTP @ 4spf @ 120* phased. Sand used was 20/40 mesh Premium White. Well was cleaned out to PBTD 5975 and a pump was ran 10/2/2012. Well was PTP 10/3/2012.								
NAME (PLEASE PRINT) Rodrigo Jurado	<b>PHONE NUMBE</b> 435 722-5302	R TITLE Regulatory & Compliance S	рс					
SIGNATURE N/A		<b>DATE</b> 10/19/2012						

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

CONFORTE FORMAGE	
5. LEASE DESIGNATION AND ALL AU BI	
14-20-H62-4633	

												li	14-20-1	162-4	<u> </u>	
WEL	L COM	PLET	ION	OR R	ECO	MPL	ETIC	N RE	POR	TANE	LOG		Jte Ind			RIBE NAME
1a. TYPE OF WELL	:	OIL WE	LL Z	] 9	SAS VELL	]	DRY		OTHE	R			NIT or CA 14-20-			ME
b. TYPE OF WORK	C: HORIZ.	DE: EN	EP-	] [	RE- NTRY	]	DIFF. RESVR.		OTHE	R			Jte Tri			
2. NAME OF OPERA	ATOR:	na Con	nnan	y Inc									13013			
Petroglyph		ily Col	прап	y, 1110.						PHONE	NUMBER:		ELD AND		R WILD	CAT
P.O. Box 60		CI	™ Ro	osevel	t	STATE	UT	ZIP <b>84</b> (	)66	(43	5) 722-2531		Antelo			
4. LOCATION OF W AT SURFACE:			FEL									•	OTR/QTR, MERIDIAN ESE		1, TOWN <b>5S</b>	NSHIP, RANGE,
AT TOP PRODU					64' FS	L, 662	2' FEL									
AT TOTAL DEPT	'н: 643' F	SL, 66	分 文 FE	EL É	3HL	64	HSM	Λ					COUNTY Ouches			13. STATE UTAH
14. DATE SPUDDE 7/11/2012		DATE T.I		HED:	16. DATE	сомЫ 2/2012		P	BANDONE	D 🔲	READY TO PRODU	CE 🚺		ATIONS 38' R		B, RT, GL):
18. TOTAL DEPTH:				19. PLUG				<del></del>	20. IF M	ULTIPLE CO	OMPLETIONS, HOW	MANY? *	21. DEP	TH BRIDG JG SET:	E ME	)
	TVD 6,0						5,972								TV	'D
22. TYPE ELECTRIC	C AND OTHER	MECHANI	ICAL LO	GS RUN (S	Submit cop	y of each	)			23.	L CORED?	NO	[ <b>7</b> ]	ES 🗍	(Su	bmit analysis)
ACTR, Bore	hole Volu	ume, S	DDS	N, Cen	nent B	ond L	og			WAS WELL CORED?  NO Y YES (Submit analysis)  WAS DST RUN?  NO Y YES (Submit report)				• •		
										DIRECTIO	NAL SURVEY?	NO		es 🗸	(Sul	bmit copy)
24. CASING AND L	INER RECORD	) (Report a	III string	s set in w	∍li)											
HOLE SIZE	SIZE/GRA	DE	WEIGHT	ſ (#/ft.)	TOP (	MD)	вотто	M (MD)		EMENTER PTH	CEMENT TYPE & NO. OF SACKS	SLU VOLUM		CEMEN	T TOP *	
20"	16" J	J-55	75	5	C	)	5	4								Conductor
12.25"	8.625" (	J-55	24			)		22			G 300		51		0	OBL
7.875"	5.5"	J-55	15	.5	<u> </u>	)	6,0	031			G 820	2:	53		0	CBL
	<u> </u>											1				<del></del>
							_		<u> </u>			<u>-</u>			<del></del>	
25. TUBING RECO	IRD								<u>'</u>		I			·		
SIZE	DEPTH S	SET (MD)	PACK	KER SET (I	MD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)	SIZE	D	EPTH SE	T (MD)	PACKER SET (MD)
2.875	5,7	'82														<u> </u>
26. PRODUCING IN	ITERVALS										RATION RECORD					
FORMATION	NAME	TOP (	(MD)	BOTTO			(TVD)		M (TVD)		AL (Top/Bot - MD)		NO. HOL			ORATION STATUS
(A) Green Riv	ver	4,4	18	5,	744	4,4	115	5,7	41	4,418	5,744	0.42	344	_		Squeezed
(B) , <sup>*</sup>					,			ļ					<u> </u>	Оре	=	Squeezed
(C)		ļ						ļ						Ope	_=	Squeezed Squeezed
(D)						<u> </u>		<u></u>				<u> </u>		Оре	<u>" Ll</u>	Squeezeu [
28. ACID, FRACTU		NT, CEME	NT SQU	EEZE, ET	C			_	****	NINT AND 3	DVDE OF MATERIAL					
	INTERVAL		<u> </u>				2 4511				TYPE OF MATERIAL	#= <b>-</b> £ 0	0/40 ==	oob o		
4,418'-5,744	<u> </u>		3,05	55 Bbls	of De	elta 14	0 15#	Gelle	a Fluid	contain	ing 223,060#	5 01 2	0/40 11	iesii s	anu.	
			ļ													<del> </del>
	TACHIENTO		<u> </u>												30. WI	ELL STATUS:
	TACHMENTS: TRICAL/MECHA RY NOTICE FO	ANICAL LO		O CEMENT	VERIFICA	ATION		GEOLOG	IC REPOR'		DST REPORT (	DIRECT		BURVEY	-11	EDOW

(CONTINUED ON BACK)

MON 1 9 5015 DIV. OF OIL, GAS & MINING

#### INTERVAL A (As shown in item #26) 31. INITIAL PRODUCTION GAS -- MCF: WATER - BBL: PROD. METHOD: TEST PRODUCTION OIL - BBL: TEST DATE: HOURS TESTED: DATE FIRST PRODUCED: PATES: 194 132 49 Rod Pump 10/19/2012 24 10/3/2012 WATER - BBL: GAS - MCF INTERVAL STATUS: API GRAVITY BTU - GAS GAS/OIL RATIO 24 HR PRODUCTION OIL - BBL: CHOKE SIZE: TBG. PRESS. CSG. PRESS. RATES: 132 49 Open 194 240 34.50 1 680 38/64 65 INTERVAL B (As shown in item #26) WATER - BBL: PROD. METHOD: TEST PRODUCTION OIL - BBL: GAS - MCF: HOURS TESTED: DATE FIRST PRODUCED: TEST DATE: RATES: WATER - BBL: NTERVAL STATUS: GAS - MCF 24 HR PRODUCTION OIL - BBL: API GRAVITY BTU - GAS GAS/OIL RATIO CHOKE SIZE: TBG. PRESS. CSG. PRESS RATES: INTERVAL C (As shown in item #26) GAS - MCF: WATER - BBL: PROD. METHOD: HOURS TESTED: TEST PRODUCTION OIL - BBL: TEST DATE: DATE FIRST PRODUCED: RATES: GAS - MCF: WATER - BBL: INTERVAL STATUS: 24 HR PRODUCTION OIL - BBL: CHOKE SIZE: CSG. PRESS. API GRAVITY BTU - GAS GAS/OIL RATIO TBG, PRESS RATES: INTERVAL D (As shown in item #26) TEST PRODUCTION OIL - BBL: GAS - MCF WATER - BBL: PROD METHOD: HOURS TESTED: TEST DATE: DATE FIRST PRODUCED: RATES: GAS - MCF: WATER - BBL: INTERVAL STATUS: BTU - GAS GAS/OIL RATIO 24 HR PRODUCTION OIL - BBL: API GRAVITY CHOKE SIZE: TBG. PRESS. CSG. PRESS. RATES: 32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.) Used for Fuel 34. FORMATION (Log) MARKERS: 33. SUMMARY OF POROUS ZONES (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries. Top (Measured Depth) Bottom Name Descriptions, Contents, etc. Formation 2.846 Trona 2.994 Mahogany 4,088 **B** Marker 4,585 X Marker 5,140 B Lime Castle Peak 5.672

35. ADDITIONAL REMARKS (Include plugging procedure)

All Frac and Perf info is condensed. Please see NOI and Subsequent Frac Sundry for detailed record.

<ol> <li>I hereby certify that the foregoing and attached information is complete and correct as determined.</li> </ol>	nined from all available records.
NAME (PLEASE PRINT) Rodrigo Jurado	TITLE Regulatory Compliance Spc
SIGNATURE	DATE 11/9/2012
Old Wild Mark	

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\*ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

## STATE OF UTAH G

DE	EPARTMENT	OF NATU	JRAL RI	ESOURCES
יום	VISION OF	OIL, G	AS AN	D MININ

		1+c T-1/2	al 17-16			
				<del></del>		
API number: _	43-013	- 52/2		<b>.</b> (		
Well Location:	QQ <u>SESE</u> se	ction 17 1	ownship <u>55</u> Range <u>3W</u> Cod	unty <u>Duch ESH &amp;</u>		
Well operator:	Petroglyph Op	perating Comp	pany, Inc.			
Address:	P.O. Box 607					
	city Roosevelt		state UT zip 84066 PI	hone: (435) 722-2531		
Drilling contrac	ctor:					
Address:						
, 100.000.	city Ves m	al	state Ut zip 84078 PI	hone: 435781-1366		
Matan an acum						
vvater encoum	tered (attach ad					
	FROM	TH TO	VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)		
•	0	515	no water			
İ		370	TO WALLEY			
Ī						
Į						
Formation tops (Top to Bottom)			2			
(, op 10 2011511)	4		5			
	7		8			
	10		11	12		
f en enekvoje b	aa baan mada	of the water o	encountered, please attach a copy	of the report to this form		
r an anaiysis i	ias peen made	or the water t	encountered, please attach a copy	of the report to this form.		
I hereby certify t	hat this report is to	rue and complet	e to the best of my knowledge.			
		Farres	Wasth TITLE D	istrict Manager 2-13-12		
NAME (PLEASE PRIN	2 1	All	1	1-13-12		
SIGNATURE	as sunsero	U/KI	DATE 10	/ -		



Job Number: UT121021

Company: Petroglyph

Lease/Well: Ute Tribal 17-16

Location: Sec. 17, T5S, R3W

Rig Name: Aztec 673

**RKB: 14.5** 

G.L. or M.S.L.: MSL

State/Country: Utah/U.S

Declination: 11.23

**Grid: True North** 

File name: C:\WINSERVE\UT121021.SVY

Date/Time: 03-Sep-12 / 16:02

**Curve Name: Actual** 

#### **Payzone Directional**

#### WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method
Vertical Section Plane 39.00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured	sured Incl Drift True V			Vertical	CL	Dogleg			
Depth FT	Angle Deg	Direction Deg	Vertical Depth	N-S FT	E-W FT	Section FT	Distance FT	Direction Deg	Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
528.00	.50	8.90	527.99	2.28	.36	1.99	2.30	8.90	.09
588.00	.60	49.30	587.99	2.74	.64	2.53	2.81	13.05	.65
711.00	2.90	42.50	710.93	5.45	3.23	6.27	6.34	30.60	1.87
833.00	3.21	40.81	832.75	10.31	7.54	12.76	12.78	36.18	.26
955.00	3.34	39.57	954.55	15.64	12.04	19.73	19.74	37.59	.12
1079.00	2.90	37.99	1078.37	20.90	16.27	26.48	26.48	37.91	.36
1203.00	2.90	37.25	1202.21	25.87	20.10	32.75	32.76	37.85	.03
1327.00	2.55	37.65	1326.07	30.55	23.68	38.64	38.65	37.79	.28
1451.00	2.15	41.90	1449.96	34.46	26.92	43.72	43.73	38.00	.35
1575.00	2.46	37.50	1573.86	38.30	30.10	48.71	48.71	38.16	.29
1700.00	2.50	40.81	1698.75	42.50	33.51	54.11	54.12	38.26	.12
1823.00	2.81	39.62	1821.62	46.85	37.19	59.81	59.81	38.44	.26

1946.00	Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L ( Distance FT	O S U R E Direction Deg	Dogleg Severity Deg/100
2072.00	1948.00	3.43	44.67	1946.43	51.87	41.77	66.60	66.60	38 84	54
2196.00										
2320.00		3.38				49.84	79.52			69
2444.00         2.20         31.97         2441.77         72.30         56.69         91.86         91.87         38.10         .60           2570.00         2.77         25.03         2567.66         77.11         59.26         97.21         97.25         37.54         .51           2898.00         2.68         22.22         2818.02         268         22.22         2818.03         36.61         36.75         .39           2942.00         3.03         34.52         2939.16         94.27         67.52         115.75         115.96         35.61         .57           3096.00         2.81         38.96         3063.00         99.34         71.29         122.06         122.27         35.66         .25           3190.00         2.59         45.60         3186.87         103.66         75.20         127.88         128.06         35.96         .31           3314.00         1.58         37.95         3310.78         106.97         78.25         132.38         122.54         36.19         .84           3438.00         .48         43.57         3434.76         108.69         79.66         134.60         134.76         36.24         .89           3562.00 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>86.33</td> <td>86.33</td> <td>38 39</td> <td>.03 37</td>							86.33	86.33	38 39	.03 37
2570.00		2.20								.07
2694.00 3.25 24.77 2691.48 83.01 62.00 103.53 103.61 36.75 39 2818.00 2.68 22.22 2815.32 88.89 64.57 109.71 109.86 35.99 .47 2942.00 3.03 34.52 2939.16 94.27 67.52 115.75 115.96 35.61 .57 3066.00 2.81 36.96 3063.00 99.34 71.29 122.06 122.27 35.66 25 3066.00 2.81 36.96 3063.00 99.34 71.29 122.06 122.27 35.66 25 3190.00 2.59 45.60 3186.87 103.66 75.20 127.88 128.06 35.96 .31 3314.00 1.58 37.95 3310.78 106.97 78.25 132.38 132.54 36.19 .84 3438.00 .48 43.57 3434.76 108.69 79.66 134.60 134.76 36.24 .89 3562.00 .09 93.98 3682.76 109.69 80.55 135.93 136.08 36.29 .25 3868.00 .09 93.98 3682.76 109.69 80.55 135.93 136.08 36.29 .25 3810.00 .44 231.13 3930.75 109.44 80.94 135.98 138.12 36.49 .58 4059.00 .48 205.95 4055.75 108.66 80.34 135.01 135.14 36.48 16 4183.00 1.01 208.19 4179.74 107.23 79.59 133.43 133.54 36.88 .16 43 4183.00 1.01 208.19 4179.74 107.23 79.59 133.43 133.54 36.88 37.02 .47 4555.00 .79 151.46 4551.73 104.63 80.24 132.61 132.71 36.78 1.00 4431.00 .44 179.94 4427.73 105.86 79.83 132.51 132.58 37.02 .47 4555.00 .79 151.46 4551.73 104.63 80.24 133.81 131.86 37.49 .37 4679.00 1.01 108.16 4675.71 102.78 80.65 130.63 130.65 38.12 40.84 38.12 36.85 .26 26 499.00 .97 200.99 4933.67 98.21 79.65 130.63 126.64 128.62 38.65 .26 499.75 200.99 4933.67 98.21 79.65 124.76 124.77 39.83 .07 5299.00 .66 186.69 5295.66 94.63 80.21 79.65 126.45 39.04 41.2 34.1 5547.00 .83 190.83 5543.00 .79 124.76 124.77 39.83 .07 5299.00 .66 186.69 5295.66 94.63 80.21 79.65 126.45 126.45 39.04 121.93 122.04 41.42 .34 5671.00 .79 207.36 566.61 89.86 5791.60 88.44 79.54 118.79 118.95 41.97 .13 5795.00 .66 199.80 5791.60 88.44 79.54 118.79 118.95 41.97 .13 5991.00 .79 207.36 566.61 89.88 80.17 120.30 120.04 41.22 .34 1599.00 .79 207.36 566.61 89.88 80.17 120.30 120.04 41.22 .34 11.97 .13 5991.00 .79 207.36 566.61 89.86 5791.60 88.44 79.54 118.79 118.95 41.97 .13 5991.00 .79 207.36 566.61 89.88 80.17 120.30 120.04 41.42 .34 1599.00 .79 207.36 566.61 89.88 80.17 120.30 120.04 41.42 .34 1599.00 .79 207.36 566.61 89.80 5791.60 88.44 79.54 118.79 1					. 2.00	00.00	01.00	01.01	00.10	.00
2694.00	2570.00	2.77	25.03	2567.66	77.11	59.26	97.21	97.25	37.54	51
2818.00	2694.00				83.01		103.53			39
2942.00         3.03         34.52         2939.16         94.27         67.52         115.75         115.96         35.61         .57           3066.00         2.81         38.96         3063.00         99.34         71.29         122.06         122.27         35.66         .25           3190.00         2.59         45.60         3186.87         106.97         78.25         132.38         132.54         36.19         .84           3434.00         1.58         37.95         3310.78         106.97         78.25         132.38         132.54         36.19         .84           3438.00         4.8         43.57         343.76         108.69         79.66         134.60         124.76         36.24         .89           3562.00         .35         34.35         3558.76         109.69         80.55         135.93         136.08         36.26         .12           3810.00         .31         85.41         3806.76         109.71         80.98         136.22         136.36         36.43         18           3934.00         .44         231.13         3930.75         109.44         80.94         135.98         136.12         36.49         .58           4059.0										.00 47
3066.00   2.81   38.96   3063.00   99.34   71.29   122.06   122.27   35.66   2.5			34.52							. <del></del> 57
3190.00										
3314.00	0000.00	2.01	00.00	0000.00	00.04	71.20	122.00	122.21	33.00	.25
3314.00	3190.00	2.59	45.60	3186.87	103.66	75.20	127.88	128.06	35.96	31
3438.00										
3562.00										90
3686.00										.00
3810.00										
3934.00	0000.00	.00	55.50	0002.70	100.00	00.00	100.90	130.00	30.29	.23
3934.00	3810.00	.31	85.41	3806.76	109.71	80.98	136.22	136.36	36.43	.18
4059.00       .48       205.95       4055.75       108.66       80.34       135.01       135.14       36.48       .16         4183.00       1.01       208.19       4179.74       107.23       79.59       133.43       133.54       36.58       .43         4307.00       .35       85.28       4303.73       106.30       79.46       132.61       132.71       36.78       1.00         4431.00       .44       179.94       4427.73       105.86       79.83       132.51       132.58       37.02       .47         4555.00       .79       151.46       4551.73       104.63       80.24       131.81       131.86       37.49       .37         4679.00       1.01       180.16       4675.71       102.78       80.65       130.63       130.65       38.12       .40         4803.00       1.19       194.00       479.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25 <td< td=""><td>3934.00</td><td>.44</td><td>231.13</td><td>3930.75</td><td>109.44</td><td></td><td>135.98</td><td>136.12</td><td></td><td>.58</td></td<>	3934.00	.44	231.13	3930.75	109.44		135.98	136.12		.58
4183.00       1.01       208.19       4179.74       107.23       79.59       133.43       133.54       36.58       .43         4307.00       .35       85.28       4303.73       106.30       79.46       132.61       132.71       36.78       1.00         4431.00       .44       179.94       4427.73       105.86       79.83       132.51       132.58       37.02       .47         4555.00       .79       151.46       4551.73       104.63       80.24       131.81       131.86       37.49       .37         4679.00       1.01       180.16       4675.71       102.78       80.65       130.63       130.65       38.12       .40         4803.00       1.19       194.00       4799.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76 <td< td=""><td>4059.00</td><td>.48</td><td>205.95</td><td>4055.75</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	4059.00	.48	205.95	4055.75						
4307.00       .35       85.28       4303.73       106.30       79.46       132.61       132.71       36.78       1.00         4431.00       .44       179.94       4427.73       105.86       79.83       132.51       132.58       37.02       .47         4555.00       .79       151.46       4551.73       104.63       80.24       131.81       131.86       37.49       .37         4679.00       1.01       180.16       4675.71       102.78       80.65       130.63       130.65       38.12       .40         4803.00       1.19       194.00       4799.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       188.69       5295.65       94.63       80.21       124.02       1										43
4431.00       .44       179.94       4427.73       105.86       79.83       132.51       132.58       37.02       .47         4555.00       .79       151.46       4551.73       104.63       80.24       131.81       131.86       37.49       .37         4679.00       1.01       180.16       4675.71       102.78       80.65       130.63       130.65       38.12       .40         4803.00       1.19       194.00       4799.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       12		.35								1.00
4555.00       .79       151.46       4551.73       104.63       80.24       131.81       131.86       37.49       37         4679.00       1.01       180.16       4675.71       102.78       80.65       130.63       130.65       38.12       .40         4803.00       1.19       194.00       4799.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.									55175	1100
4555.00       .79       151.46       4551.73       104.63       80.24       131.81       131.86       37.49       .37         4679.00       1.01       180.16       4675.71       102.78       80.65       130.63       130.65       38.12       .40         4803.00       1.19       194.00       4799.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122	4431.00	.44	179.94	4427.73	105.86	79.83	132.51	132.58	37.02	.47
4679.00       1.01       180.16       4675.71       102.78       80.65       130.63       130.65       38.12       .40         4803.00       1.19       194.00       4799.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.	4555.00	.79	151.46	4551.73	104.63	80.24				37
4803.00       1.19       194.00       4799.69       100.44       80.33       128.61       128.62       38.65       .26         4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.44       41.73       .19         5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95										
4927.00       .97       200.99       4923.67       98.21       79.65       126.45       126.45       39.04       .21         5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.44       41.73       .19         5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48 </td <td></td>										
5051.00       .48       152.03       5047.66       96.77       79.51       125.25       125.25       39.41       .60         5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.44       41.73       .19         5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48       42.23       .11						79.65				21
5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.44       41.73       .19         5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48       42.23       .11	,5=,		200.00	.020101	00.21	10.00	120.10	120.10	00.04	.21
5175.00       .48       162.40       5171.65       95.82       79.91       124.76       124.77       39.83       .07         5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.44       41.73       .19         5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48       42.23       .11	5051.00	.48	152.03	5047.66	96.77	79.51	125.25	125.25	39.41	.60
5299.00       .66       168.69       5295.65       94.63       80.21       124.02       124.05       40.29       .15         5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.44       41.73       .19         5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48       42.23       .11	5175.00	.48	162.40	5171.65	95.82					
5423.00       .75       160.07       5419.64       93.16       80.63       123.14       123.21       40.87       .11         5547.00       .83       190.83       5543.63       91.52       80.74       121.93       122.04       41.42       .34         5671.00       .79       207.36       5667.61       89.88       80.17       120.30       120.44       41.73       .19         5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48       42.23       .11	5299.00									
5547.00     .83     190.83     5543.63     91.52     80.74     121.93     122.04     41.42     .34       5671.00     .79     207.36     5667.61     89.88     80.17     120.30     120.44     41.73     .19       5795.00     .66     199.80     5791.60     88.44     79.54     118.79     118.95     41.97     .13       5919.00     .79     203.53     5915.59     86.99     78.96     117.29     117.48     42.23     .11										
5671.00     .79     207.36     5667.61     89.88     80.17     120.30     120.44     41.73     .19       5795.00     .66     199.80     5791.60     88.44     79.54     118.79     118.95     41.97     .13       5919.00     .79     203.53     5915.59     86.99     78.96     117.29     117.48     42.23     .11		.83								
5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48       42.23       .11	0011.00	.00	100.00	00 10.00	31.02	00.14	127.55	122.04	71.72	.54
5795.00       .66       199.80       5791.60       88.44       79.54       118.79       118.95       41.97       .13         5919.00       .79       203.53       5915.59       86.99       78.96       117.29       117.48       42.23       .11		.79	207.36		89.88	80.17	120.30	120.44	41.73	.19
5919.00 .79 203.53 5915.59 86.99 78.96 117.29 117.48 42.23 .11	5795.00									.13
111										
										14

Page 2
Actual File: C:\WINSERVE\UT121021.SVY

Measured Depth	Incl Angle Dea	Drift Direction Dea	True Vertical Depth	N-S	E-W	Vertical Section	C L · Distance	OSURE Direction	Dogleg Severity
Projection to 6055.00	· · · · · · · · · · · · · · · · · · ·	199.49	6051.58	85.38	78.35	115.66	115.88	Deg 42.54	.00